



DZ

DUŠILNIK ZVOKA SOUND ATTENUATOR

OPIS:

Dušilnik zvoka se uporablja za dušenje šuma ventilatorjev v prezračevalnih sistemih. Vgradimo ga na kvadratne in pravokotne kanale.

KONSTRUKCIJA: Dušilnik zvoka sestavljajo zunanji plašč s prirobnicami širine 20 mm ali 30 mm in dušilne kulise tipa K1, K2 ali K3 z usmerniki zraka. V okvirje dušilnih kulis iz pocinkane pločevine je vstavljeno polnilo iz mineralne volne. Izpostavljeni del polnila je zaščiteno s prevleko iz črnega steklenega voala. Standardna debelina izolacije je 100 ali 200 mm.

MATERIAL: pocinkana pločevina

MONTAŽA: s prirobnico

DESCRIPTION:

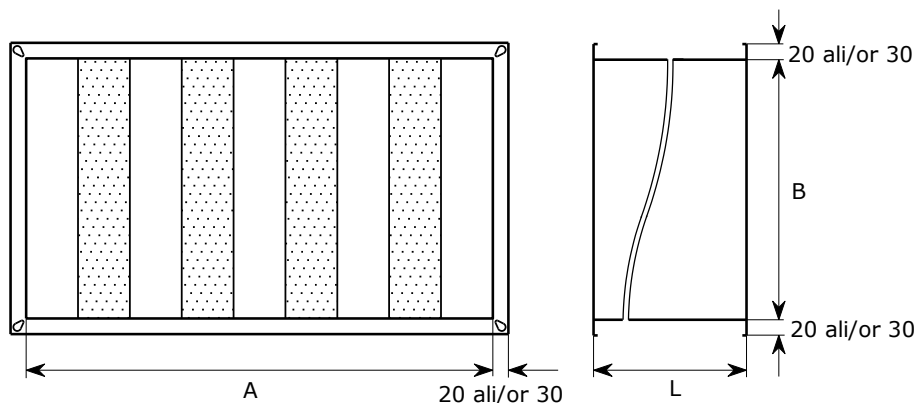
The sound attenuator is used to reduce the noise in industrial and civil conditioning and ventilation systems. It is installed in square and rectangular ducts and fans.

CONSTRUCTION: The silencer is made of an external casing with 20 mm or 30 mm flanges and acoustic panels type K1, K2 or K3 with air guidance. Acoustic panels are filled with mineral wool. Exposed surface of mineral wool is protected with black glass voile cover. Standard insulation thickness is 100 or 200 mm.

MATERIAL: galvanized sheet metal

INSTALLATION: with flange

DIMENZIJE / DIMENSIONS:



Dimenzije A, B in L so poljubne / Dimensions A, B and L are optional.

NAČIN NAROČANJA / HOW TO ORDER:

DZ	600	x	200	L=1500	K1	3	x	100
							širina kulise / acoustic panel width	
							100, 200	
							število kulis / No. of acoustic panels	
							tip kulise / type of acoustic panel	
							K1, K2, K3	
							dolžina L / length L	
							poljubna / optional	
							višina B / height B	
							poljubna / optional	
							širina A / width A	
							poljubna / optional	
							tip dušilnika zvoka / type of sound attenuator	



DUŠILNE KULISE ACOUSTIC PANELS

OPIS:

Dušilne kulise se uporabljajo zmanjševanje šuma ventilatorjev prezračevalnem kanalski sistemu. Vgradijo se v kvadratne ali pravokotne kanale.

KONSTRUKCIJA: Dušilne kulise so sestavljene iz okvirja iz pocinkane pločevine v katerega je vstavljeno polnilo za absorpcijo zvoka iz mineralne volne. Polnilo je negorljivo z območjem delovanja do 100°C. Izpostavljeni del polnila je zaščiten s prevleko iz črnega steklenega voala, ki preprečuje odnašanje vlaken.

Lastnosti mineralne volne:

- Toplotna prevodnost λ (po SIST EN 12667): 0,035 W/mK
- Upornost zračnemu toku AF: ≥ 10 kPa·s/m

Kulise so standardnih debelin 100 in 200 mm. Debelina kulise 100 mm je primerna za manjše količine zraka in veliko dušenje zvoka pri višjih frekvencah. Debelina kulise 200 mm pa je primerna za večje količine zraka in veliko dušenje zvoka pri nizkih frekvencah.

Tipi dušilnih kulis:

STANDARD:

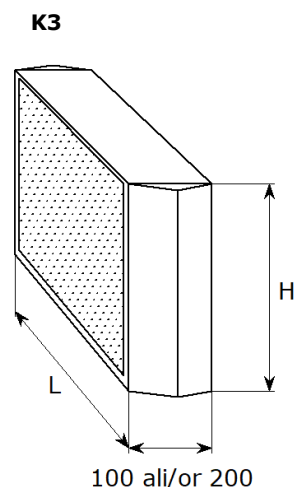
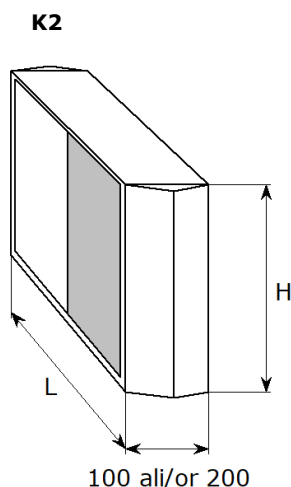
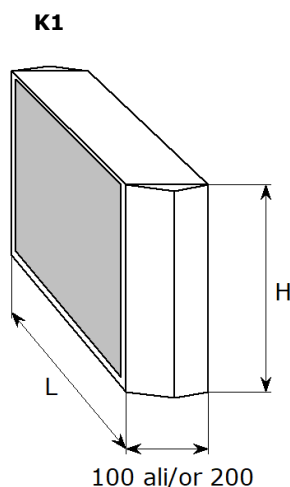
- **K1** – površina mineralne volne je zaščiten z prevleko iz črnega steklenega voala

OPCIJA:

- **K2** – površina mineralne volne je zaščiten s prevleko iz črnega steklenega voala in delno prekrita s pasovi iz pocinkane pločevine
- **K3** – površina mineralne volne je zaščiten s prevleko iz črnega steklenega voala in prekrita s perforirano pločevino za zaščito absorpcijskega materiala do temperature 300°C do 3 h

MATERIAL: pocinkana pločevina, mineralna volna

DIMENZIJE / DIMENSIONS:



Dimenziji L in H sta poljubni / Dimensions L and H are optional.

DESCRIPTION:

Acoustic panels are used to reduce the noise in industrial and civil conditioning and ventilation systems. They are installed in square and rectangular ducts and fans.

CONSTRUCTION: Acoustic panels are made of galvanized sheet metal frame filled with mineral wool which absorbs noise. They are designed to be incombustible with operating temperature up to 100°C. Exposed surface of mineral wool is protected by a black glass voile cover.

Properties of mineral wool:

- Thermal conductivity λ (as per SIST EN 12667): 0,035 W/mK
- Resistance to air flow AF: ≥ 10 kPa·s/m

Standard acoustic panel thicknesses are 100 and 200 mm. 100 mm acoustic panel is suitable for smaller air flow rates and high degree attenuation in high frequency range. 200 mm acoustic panel is suitable for large airflow rates and high degree attenuation in low frequency range.

Acoustic panel type:

STANDARD:

- **K1** – exposed surface of mineral wool is protected with black glass voile cover

OPTION:

- **K2** – exposed surface of mineral wool is protected with black glass voile cover and partly covered with galvanized sheet steel strips
- **K3** – exposed surface of mineral wool is protected with black glass voile cover and perforated sheet metal to protect the absorption material up to a temperature of 300°C for up to 3 h

MATERIAL: galvanized sheet metal, mineral wool

TEHNIČNI PODATKI / TECHNICAL DATA

Tabela za določitev sposobnosti dušenja zvoka D (dB) / Sound attenuation capacity D (dB) determination table

K1-100 L=500

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	40	60	100	200
63	2	3	3	0
125	4	4	3	1
250	9	8	5	3
500	15	13	11	8
1000	30	25	20	15
2000	43	36	23	10
4000	33	24	13	5
8000	25	18	8	6

K1-100 L=1000

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	40	60	100	200
63	5	4	3	1
125	8	7	4	3
250	18	14	8	5
500	29	24	18	12
1000	43	40	34	21
2000	48	45	35	14
4000	38	33	22	8
8000	30	23	14	7

K1-100 L=1500

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	40	60	100	200
63	6	6	4	2
125	10	8	5	3
250	26	22	13	7
500	39	33	26	17
1000	49	49	43	30
2000	50	50	45	19
4000	47	42	32	10
8000	39	34	20	8

K1-100 L=2000

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	40	60	100	200
63	8	7	5	3
125	13	11	6	5
250	35	29	18	11
500	48	43	34	23
1000	50	50	50	38
2000	50	50	50	25
4000	50	50	42	13
8000	47	40	26	10

K1-100 L=2500

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	40	60	100	200
63	9	8	6	4
125	15	14	8	5
250	40	35	20	13
500	50	45	39	28
1000	50	50	48	46
2000	50	50	50	30
4000	50	50	48	16
8000	49	47	31	12

K1-100 L=3000

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	40	60	100	200
63	12	9	8	5
125	21	17	9	6
250	48	42	26	15
500	50	50	40	33
1000	50	50	48	50
2000	50	50	50	34
4000	50	50	50	20
8000	50	48	35	13

TEHNIČNI PODATKI / TECHNICAL DATA

Tabela za določitev sposobnosti dušenja zvoka D (dB) / Sound attenuation capacity D (dB) determination table

K1-200 L=500

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	60	80	100	200
63	4	3	3	2
125	5	5	4	2
250	11	10	9	6
500	20	19	18	12
1000	28	25	24	14
2000	26	24	22	11
4000	18	16	15	7
8000	12	11	10	5

K1-200 L=1000

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	60	80	100	200
63	5	4	3	2
125	10	9	8	5
250	19	18	15	11
500	33	30	30	21
1000	48	45	40	24
2000	39	35	37	17
4000	28	26	23	11
8000	18	16	15	7

K1-200 L=1500

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	60	80	100	200
63	7	6	6	3
125	15	12	11	6
250	25	26	23	15
500	45	41	38	29
1000	50	49	43	34
2000	50	48	42	24
4000	48	33	28	13
8000	24	19	18	9

K1-200 L=2000

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	60	80	100	200
63	9	8	7	4
125	15	14	13	9
250	38	34	28	20
500	50	50	50	41
1000	50	50	50	45
2000	50	50	50	32
4000	38	37	36	18
8000	26	24	22	11

K1-200 L=2500

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	60	80	100	200
63	10	9	8	4
125	19	17	15	11
250	42	40	37	22
500	50	50	50	48
1000	50	50	50	48
2000	50	50	49	40
4000	45	43	38	22
8000	30	27	23	12

K1-200 L=3000

Frekvenca Frequency (Hz)	Razmik med dušilnimi kulisami (mm) Distance between acoustic panels (mm)			
	60	80	100	200
63	12	11	10	4
125	21	19	17	11
250	48	45	42	26
500	50	50	50	49
1000	50	50	50	50
2000	50	50	49	46
4000	50	50	45	23
8000	34	28	25	13

NAČIN NAROČANJA / HOW TO ORDER:

K1	600	x	200	x	100	V
						do V - debelina 100, 200 višina H / height H poljubna / optional dolžina L / length L poljubna / optional tip dušine kulise / type of acoustic panel K1, K2, K3

dodatki / supplements

V - usmernik zraka / air guidance element

debelina / thickness

100, 200

višina H / height H

poljubna / optional

dolžina L / length L

poljubna / optional

tip dušilne kulise / type of acoustic panel

K1, K2, K3